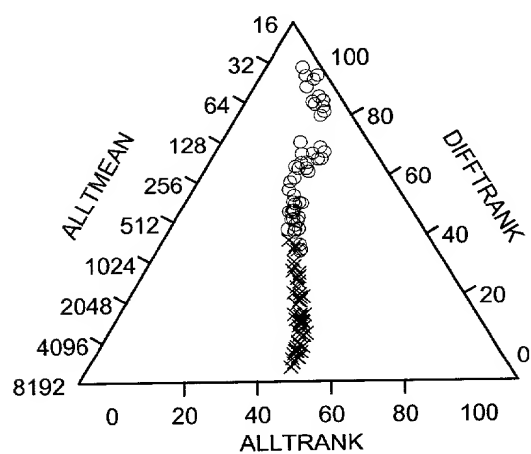
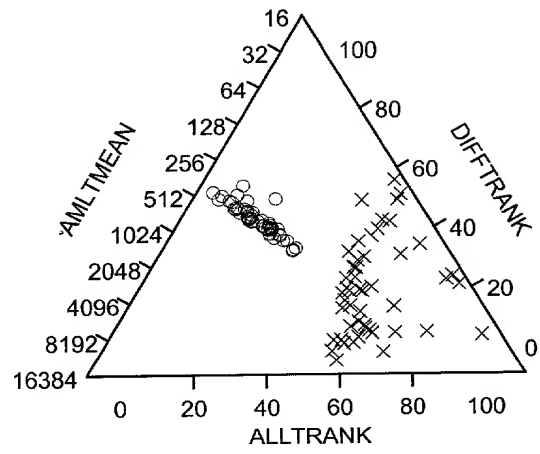


Figure 1

ALL vs. AML Model: Training Set
 Model: $x = \text{IndexRank}$, $Y = \text{DeltaRank}$



ALL Training Set Pattern
 Mean of $n=27$



AML Training Set Pattern
 Mean of $n=11$

Symbol Key (each symbol represents 1 gene):
 Circle: highest expression in AML
 Cross: highest expression in ALL

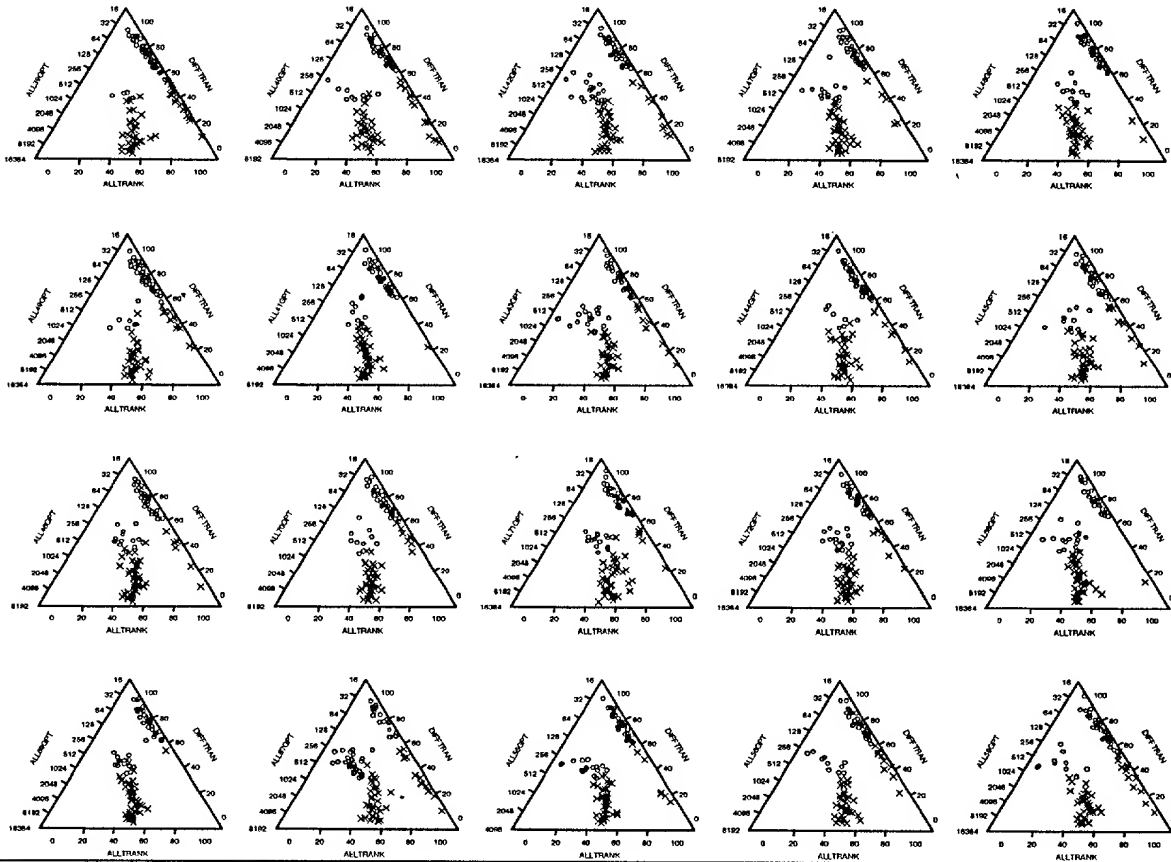
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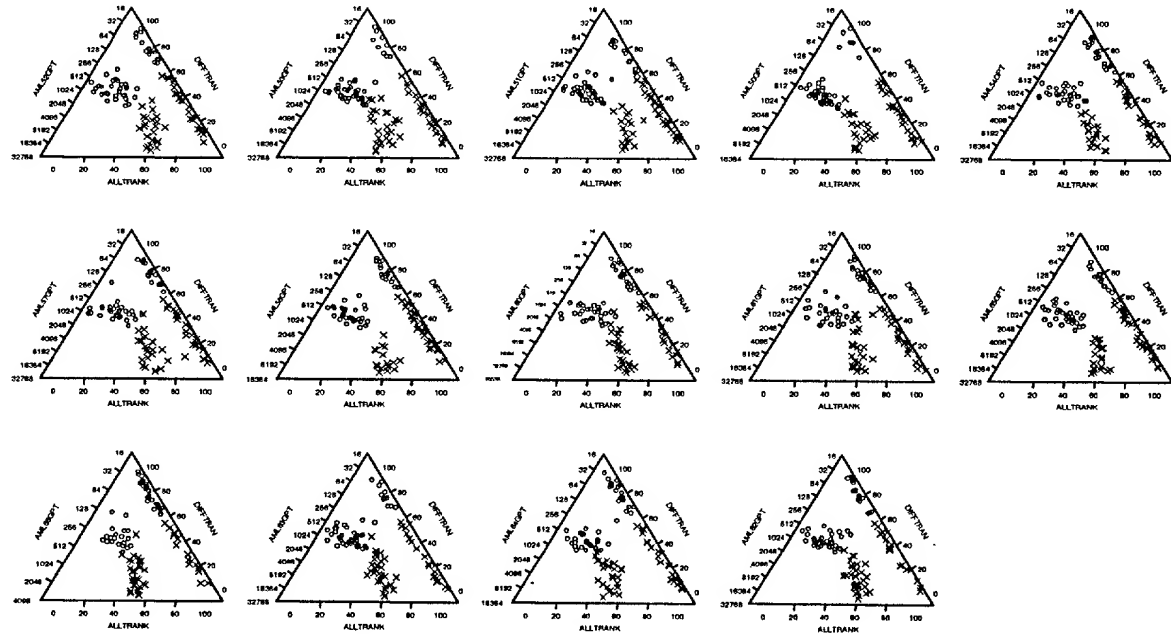
Figure 2

ALL vs. AML New Test Cases
Model: $x = \text{IndexRank}$, $Y = \text{DeltaRank}$

ALL Test Cases



AML Test Cases



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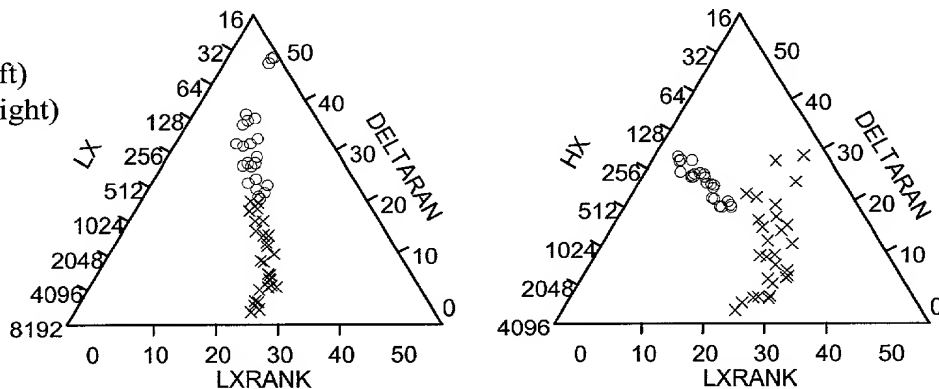
Figure 3: Breast Cancer

Breast Cancers: L-Type vs. H-Type Model:
x=IndexRank, Y=Delta Rank

11x12 Model:

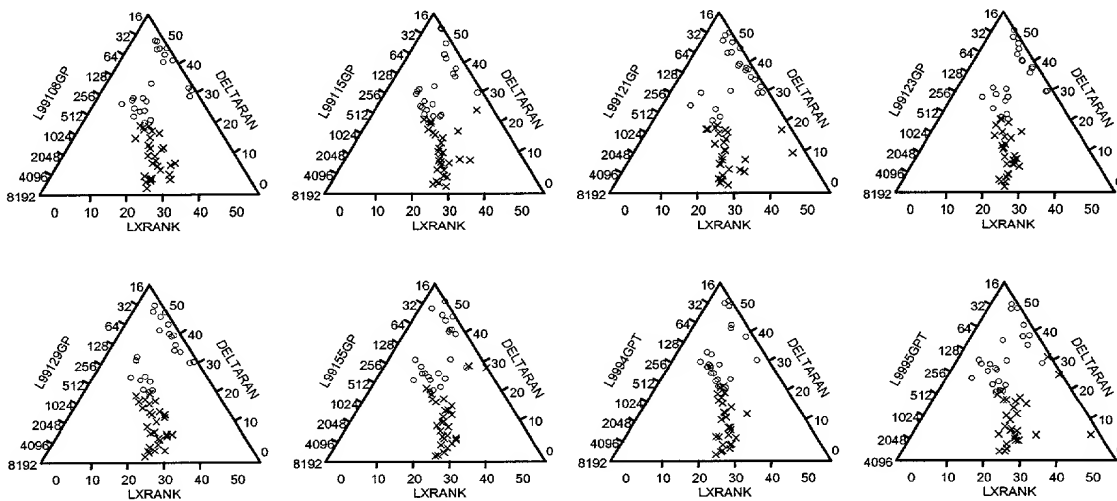
L tumor Average (Left)

H Tumor Average (Right)

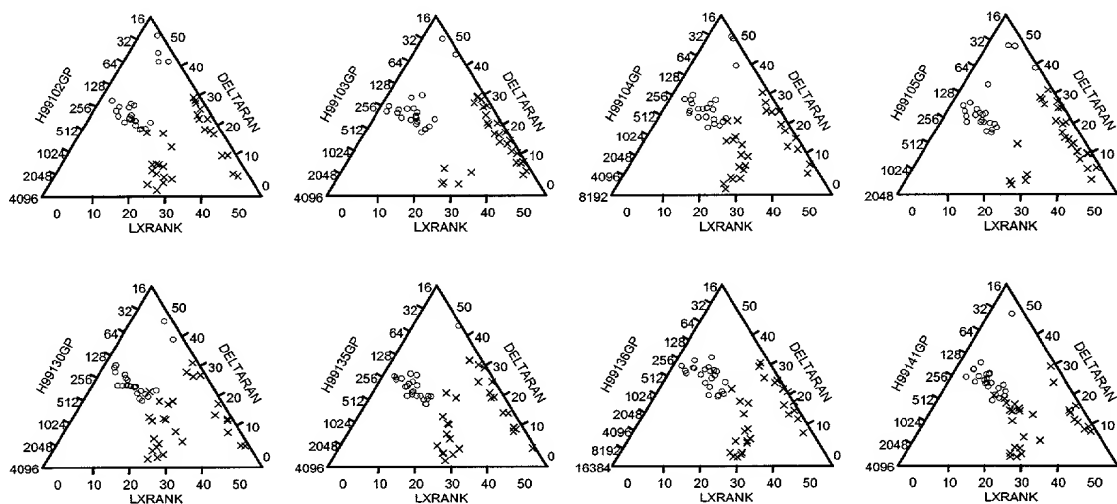


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L-Type Training Examples



H-Type Training Examples



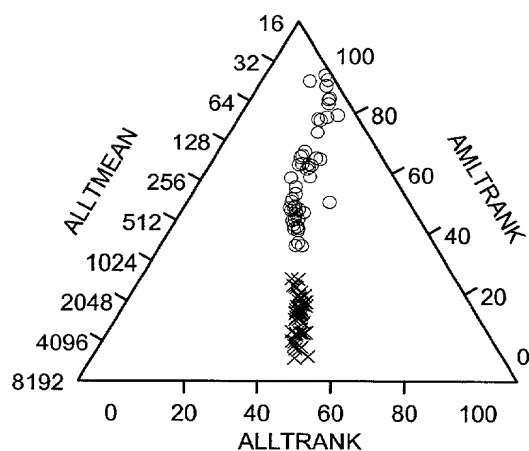
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Figure 4

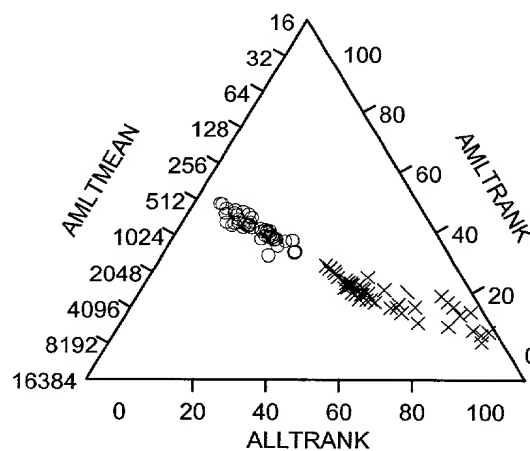
ALL vs. AML Model: Training Set

Model: $x = \text{IndexRank}$, $Y = \text{Contrast Rank}$



ALL Training Set Pattern

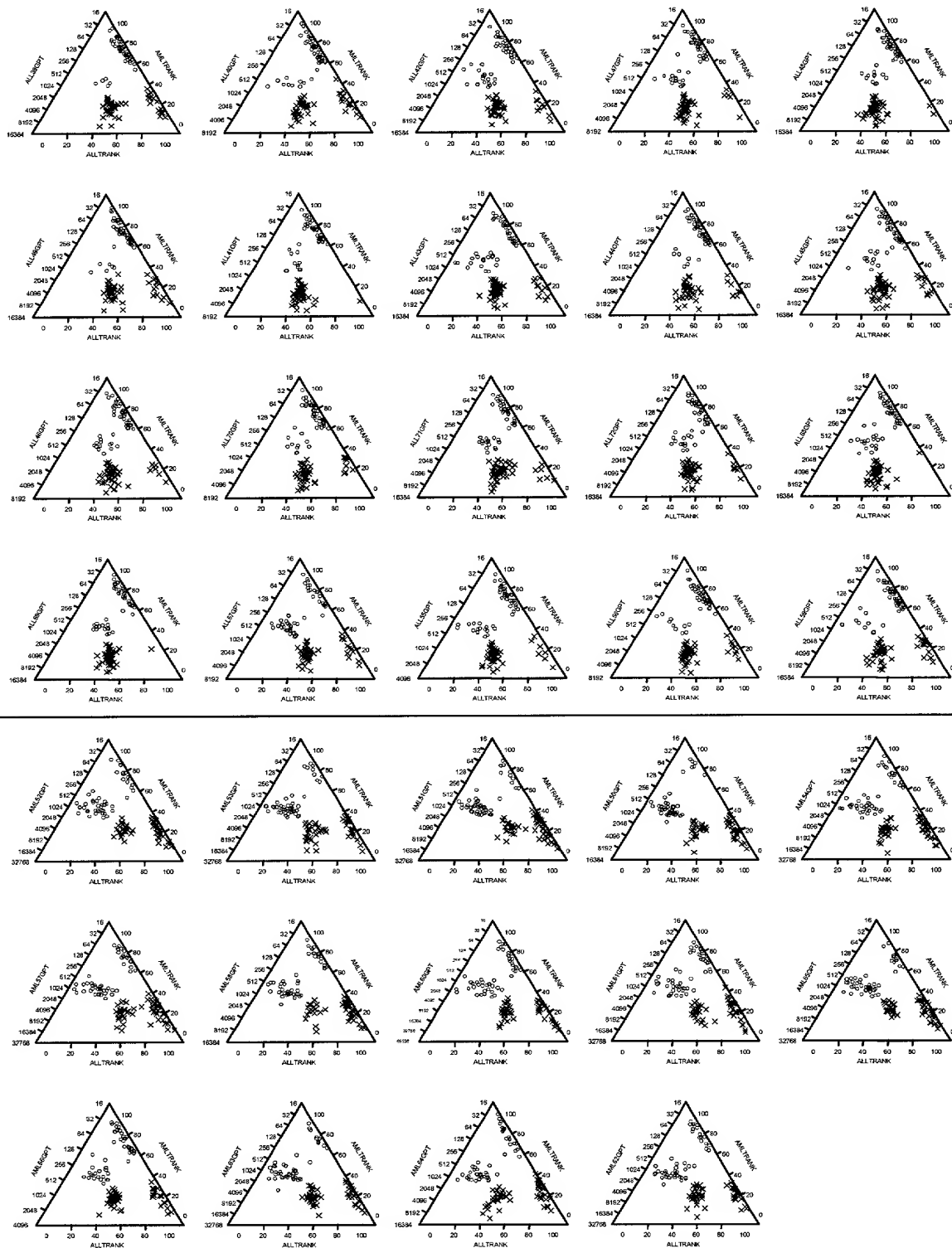
Mean of $n=27$



AML Training Set Pattern

Mean of $n=11$

ALL vs. AML New Test Cases
Model: x=IndexRank, Y=ContrastRank



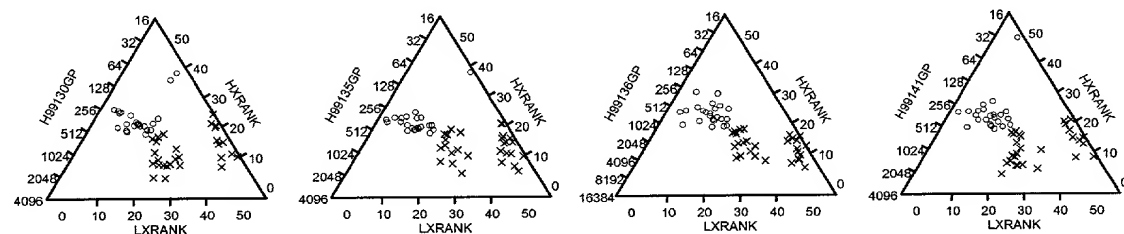


Fig. 7

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Probe	A	B	C	D	E	F	G	H	I	J	K	L
1	Probe	ALLTMean	AMLTMean	ALMTDIFPN	ALMTDIF	ALMTFold	ALMTTST	ALMTTRK	ALLTRANK	AMLTRANK	DIFFTRANK	COLORT\$
2	M13792 at	6784.81	1743.36	-5041.45	5041.45	3.89	0.00001	55.00	100.00	77.00	1.00	blue
3	L06787_s at	6381.67	1960.73	-420.94	420.94	3.25	0.00020	121.00	99.00	81.00	2.00	blue
4	M92287 at	3829.30	274.00	-3555.30	3555.30	13.98	0.00000	26.00	94.00	37.00	3.00	blue
5	U05259_ma1 at	3467.26	20.00	-3447.26	3447.26	173.36	0.00001	43.00	93.00	4.00	4.00	blue
6	X59417 at	4361.37	1138.18	-3223.19	3223.19	3.63	0.00001	46.00	98.00	65.00	5.00	blue
7	U22376 cds2_s at	3863.30	673.73	-3189.57	3189.57	5.73	0.00000	19.00	95.00	55.00	6.00	blue
8	M11722 at	3022.07	134.91	-2887.16	2887.16	22.40	0.00000	16.00	92.00	25.00	7.00	blue
9	Z15115 at	4213.00	1355.27	-2847.73	2847.73	3.09	0.00001	45.00	97.00	72.00	8.00	blue
10	X03934 at	2878.67	55.45	-2823.21	2823.21	51.91	0.00007	93.00	91.00	16.00	9.00	blue
11	HG1612-HT1612 at	3871.67	1156.84	-2715.03	2715.03	3.35	0.00001	48.00	96.00	66.00	10.00	blue
12	X97267_ma1_s at	2389.63	386.35	-2003.27	2003.27	6.18	0.00001	49.00	90.00	45.00	11.00	blue
13	Z69881 at	2197.52	281.09	-1916.43	1916.43	7.82	0.00003	68.00	88.00	39.00	12.00	blue
14	M29698 at	2218.67	319.73	-1898.94	1898.94	6.94	0.00001	47.00	89.00	42.00	13.00	blue
15	M12959_s at	1844.48	241.45	-1603.03	1603.03	7.64	0.00004	71.00	86.00	34.00	14.00	blue
16	J04615 at	2020.89	439.73	-1581.16	1581.16	4.60	0.00000	18.00	87.00	49.00	15.00	blue
17	U32944 at	1704.56	292.73	-1411.83	1411.83	5.82	0.00021	124.00	85.00	40.00	16.00	blue
18	X74262 at	1411.19	253.00	-1158.19	1158.19	5.58	0.00003	67.00	83.00	36.00	17.00	blue
19	L47738 at	1230.15	80.27	-1149.88	1149.88	15.32	0.00000	13.00	79.00	18.00	18.00	blue
20	X62535 at	1105.85	20.00	-1085.85	1085.85	55.29	0.00001	17.00	77.00	1.00	19.00	blue
21	M31523 at	1310.59	238.91	-1071.68	1071.68	5.49	0.00001	56.00	81.00	33.00	20.00	blue
22	D86983 at	1077.89	20.00	-1057.89	1057.89	53.89	0.00001	44.00	76.00	5.00	21.00	blue
23	L05148 at	1055.96	20.00	-1035.96	1035.96	52.80	0.00020	118.00	74.00	7.00	22.00	blue
24	D26156_s at	1306.00	379.36	-926.64	926.64	3.44	0.00000	30.00	80.00	43.00	23.00	blue
25	U29175 at	1202.67	382.55	-820.12	820.12	3.14	0.00005	79.00	78.00	44.00	24.00	blue
26	U90552_s at	917.37	133.64	-783.73	783.73	6.86	0.00000	15.00	70.00	24.00	25.00	blue
27	J05243 at	860.63	125.55	-735.08	735.08	6.86	0.00000	23.00	68.00	22.00	26.00	blue
28	U97105 at	1009.22	276.45	-732.77	732.77	3.65	0.00009	97.00	73.00	38.00	27.00	blue
29	M91432 at	895.96	171.45	-724.51	724.51	5.23	0.00015	110.00	69.00	30.00	28.00	blue
30	X76648 at	930.37	245.73	-684.64	684.64	3.79	0.00002	62.00	71.00	35.00	29.00	blue
31	D14658 at	981.70	315.00	-666.70	666.70	3.12	0.00004	72.00	72.00	41.00	30.00	blue
32	M63830_s at	786.44	230.36	-556.08	556.08	3.41	0.00013	105.00	67.00	32.00	31.00	blue
33	U31814 at	669.52	149.09	-520.43	520.43	4.49	0.00011	100.00	65.00	28.00	32.00	blue
34	M31211_s at	538.15	45.45	-492.69	492.69	11.84	0.00000	5.00	62.00	15.00	33.00	blue
35	L00058 at	498.22	23.64	-474.59	474.59	21.08	0.00017	115.00	59.00	9.00	34.00	blue
36	U79274 at	625.07	165.55	-459.53	459.53	3.78	0.00009	96.00	64.00	29.00	35.00	blue
37	M22898 at	607.30	148.91	-458.39	458.39	4.08	0.00003	64.00	63.00	27.00	36.00	blue
38	X68560 at	518.74	145.82	-372.92	372.92	3.56	0.00013	106.00	61.00	26.00	37.00	blue
39	L07758 at	456.07	85.82	-370.26	370.26	5.31	0.00006	90.00	58.00	19.00	38.00	blue
40	L42572 at	428.00	89.64	-338.36	338.36	4.77	0.00005	89.00	56.00	20.00	39.00	blue
41	L41870 at	357.15	25.64	-331.51	331.51	13.93	0.00000	34.00	51.00	10.00	40.00	blue
42	U25435 at	419.00	102.18	-316.82	316.82	4.10	0.00005	85.00	55.00	21.00	41.00	blue
43	Y08612 at	359.30	44.73	-314.57	314.57	8.03	0.00001	42.00	52.00	14.00	42.00	blue
44	D83783 at	347.89	43.27	-304.62	304.62	8.04	0.00023	125.00	50.00	12.00	43.00	blue
45	D43948 at	369.37	65.18	-304.19	304.19	5.67	0.00006	83.00	53.00	17.00	44.00	blue

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	A	B	C	D	E	F	G	H	I	J	K	L
1	Probe	ALLTMean	AMLTMean	ALMTDIFPN	ALMTDIF	ALMTFold	ALMTTST	ALMTTRK	ALLTRANK	AMLTRANK	DIFFTRANK	COLORS
46	S50223_at	323.26	39.73	-283.53	283.53	8.14	0.00020	122.00	47.00	11.00	45.00	blue
47	U79285_at	283.11	20.00	-263.11	263.11	14.16	0.00009	95.00	43.00	6.00	46.00	blue
48	D21262_at	255.63	20.00	-235.63	235.63	12.78	0.00000	35.00	42.00	3.00	47.00	blue
49	U49844_at	201.56	20.00	-181.56	181.56	10.08	0.00023	126.00	41.00	8.00	48.00	blue
50	M77142_at	200.11	20.00	-180.11	180.11	10.01	0.00000	29.00	39.00	2.00	49.00	blue
51	U28833_at	160.26	44.00	-116.26	116.26	3.64	0.00004	77.00	34.00	13.00	50.00	blue
52	X17848_at	28.37	133.18	104.81	104.81	4.69	0.00003	65.00	13.00	23.00	51.00	red
53	U49950_at	20.00	216.64	196.64	196.64	10.83	0.00000	4.00	1.00	31.00	52.00	red
54	U73960_at	88.19	447.09	358.91	358.91	5.07	0.00000	39.00	26.00	51.00	53.00	red
55	S76838_at	34.30	403.82	369.52	369.52	11.77	0.00005	80.00	14.00	47.00	54.00	red
56	M80254_at	43.96	420.36	376.40	376.40	9.56	0.00000	28.00	17.00	48.00	55.00	red
57	M31166_at	20.00	396.73	376.73	376.73	19.84	0.00000	12.00	3.00	46.00	56.00	red
58	X16665_at	91.48	480.91	389.43	389.43	5.26	0.00000	33.00	27.00	52.00	57.00	red
59	U05572_s_at	20.00	445.73	425.73	425.73	22.28	0.00000	40.00	7.00	50.00	58.00	red
60	U41813_at	129.19	569.82	440.63	440.63	4.41	0.00001	58.00	30.00	53.00	59.00	red
61	X70297_at	36.56	662.45	625.90	625.90	18.12	0.00000	3.00	16.00	54.00	60.00	red
62	M54995_at	35.15	675.36	640.22	640.22	19.21	0.00000	9.00	15.00	57.00	61.00	red
63	M23197_at	57.33	708.82	651.48	651.48	12.36	0.00000	22.00	20.00	58.00	62.00	red
64	U61836_at	20.00	674.82	654.82	654.82	33.74	0.00000	20.00	4.00	56.00	63.00	red
65	D26579_at	109.41	794.27	684.87	684.87	7.26	0.00004	76.00	28.00	61.00	64.00	red
66	M83652_s_at	20.00	766.36	746.36	746.36	38.32	0.00005	82.00	9.00	59.00	65.00	red
67	U41767_s_at	20.00	766.45	746.45	746.45	38.32	0.00005	81.00	8.00	60.00	66.00	red
68	Y00339_s_at	52.41	946.91	894.50	894.50	18.07	0.00004	73.00	19.00	62.00	67.00	red
69	M33493_s_at	20.00	948.45	928.45	928.45	47.42	0.00006	86.00	10.00	63.00	68.00	red
70	HG2981-HT3127_s_at	44.48	983.27	938.79	938.79	22.11	0.00000	24.00	18.00	64.00	69.00	red
71	X07743_at	150.15	1167.36	1017.22	1017.22	7.77	0.00001	51.00	32.00	67.00	70.00	red
72	U46499_at	182.48	1200.36	1017.88	1017.88	6.58	0.00000	10.00	37.00	69.00	71.00	red
73	M83667_rna1_s_at	66.59	1195.82	1129.23	1129.23	17.96	0.00004	74.00	22.00	68.00	72.00	red
74	M81695_s_at	307.04	1439.64	1132.60	1132.60	4.69	0.00002	61.00	45.00	73.00	73.00	red
75	Y12670_at	128.00	1294.45	1166.45	1166.45	10.11	0.00000	2.00	29.00	70.00	74.00	red
76	L42379_at	20.00	1302.64	1282.64	1282.64	65.13	0.00006	88.00	11.00	71.00	75.00	red
77	M19508_xpt3_s_at	201.41	1551.00	1349.59	1349.59	7.70	0.00001	41.00	40.00	74.00	76.00	red
78	M33195_at	175.63	1577.00	1401.37	1401.37	8.98	0.00001	50.00	36.00	75.00	77.00	red
79	M16038_at	370.00	1811.64	1441.64	1441.64	4.90	0.00003	66.00	54.00	78.00	78.00	red
80	X85116_rna1_s_at	308.63	1842.73	1534.10	1534.10	5.97	0.00001	57.00	46.00	79.00	79.00	red
81	M20203_s_at	20.00	1581.91	1561.91	1561.91	79.10	0.00000	25.00	6.00	76.00	80.00	red
82	M95678_at	166.70	1911.27	1744.57	1744.57	11.47	0.00000	36.00	35.00	80.00	81.00	red
83	U02020_at	185.89	2155.45	1969.57	1969.57	11.60	0.00003	70.00	38.00	83.00	82.00	red
84	L09209_s_at	513.48	2531.55	2018.06	2018.06	4.93	0.00006	84.00	60.00	86.00	83.00	red
85	M27783_s_at	20.00	2042.36	2022.36	2022.36	102.12	0.00000	21.00	5.00	82.00	84.00	red
86	M30703_s_at	27.19	2271.09	2243.91	2243.91	83.54	0.00003	63.00	12.00	84.00	85.00	red
87	D88422_at	66.11	2520.36	2454.25	2454.25	38.12	0.00000	1.00	21.00	85.00	86.00	red
88	M57731_s_at	73.70	2586.36	2514.66	2514.66	35.12	0.00000	32.00	25.00	87.00	87.00	red
89	L08246_at	1066.56	3767.45	2700.90	2700.90	3.53	0.00000	31.00	75.00	90.00	88.00	red

Fig. 7

A		B		C		D		E		F		G		H		I		J		K		L	
		ALLTMean	AMLTMean	AMLTMean	AMLTDiffPN	AMLTDiff	AMLTDiff	AMLTDiff	AMLTDiff	AMLTDiff	AMLTDiff	ALMTTST	ALMTTTRK	ALLTRANK	AMLTRANK	DIFFTRANK	DIFFTRANK	DIFFTRANK	DIFFTRANK	DIFFTRANK	DIFFTRANK	DIFFTRANK	DIFFTRANK
1	Probe		68.37	2779.91	2711.54	2711.54	2711.54	2711.54	2711.54	40.66	40.66	0.00000	8.00	24.00	88.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00
90	X95735 at		20.00	3505.91	3485.91	3485.91	3485.91	3485.91	3485.91	175.30	175.30	0.00000	7.00	2.00	89.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
91	M84526 at		304.93	4047.55	3742.62	3742.62	3742.62	3742.62	3742.62	13.27	13.27	0.00005	78.00	44.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00
92	X62320 at		333.19	4855.55	4522.36	4522.36	4522.36	4522.36	4522.36	14.57	14.57	0.00003	69.00	48.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00
93	M19507 at		453.22	5144.27	4691.05	4691.05	4691.05	4691.05	4691.05	11.35	11.35	0.00000	37.00	57.00	94.00	94.00	94.00	94.00	94.00	94.00	94.00	94.00	94.00
94	M63138 at		135.59	4919.73	4784.13	4784.13	4784.13	4784.13	4784.13	36.28	36.28	0.00002	60.00	31.00	93.00	93.00	93.00	93.00	93.00	93.00	93.00	93.00	93.00
95	J04990 at		1642.81	7108.73	5465.91	5465.91	5465.91	5465.91	5465.91	4.33	4.33	0.00001	52.00	84.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00
96	X17042 at		1398.74	6939.36	5540.62	5540.62	5540.62	5540.62	5540.62	4.96	4.96	0.00006	87.00	82.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00
97	X14008 ma1 f at		339.67	6304.82	5965.15	5965.15	5965.15	5965.15	5965.15	18.56	18.56	0.00000	14.00	49.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00
98	M28130 ma1 s at		57.26	6872.36	6805.10	6805.10	6805.10	6805.10	6805.10	102.18	102.18	0.00000	11.00	23.00	96.00	96.00	96.00	96.00	96.00	96.00	96.00	96.00	96.00
99	M96326 ma1 at		159.41	7327.82	7168.41	7168.41	7168.41	7168.41	7168.41	45.97	45.97	0.00000	6.00	33.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00
100	M27891 at		784.63	10479.09	9694.46	9694.46	9694.46	9694.46	9694.46	13.36	13.36	0.00000	27.00	66.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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Fig. 7

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